

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 63088203  
PUBLICATION DATE : 19-04-88

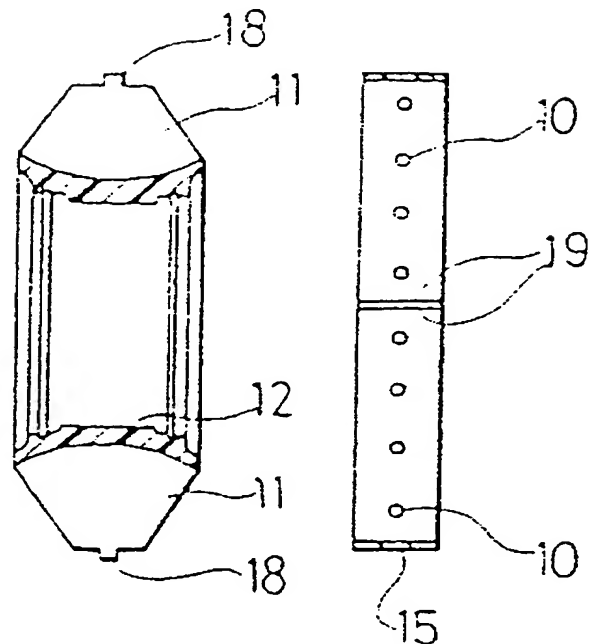
APPLICATION DATE : 30-09-86  
APPLICATION NUMBER : 61231495

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INVENTOR : ISHIKAWA KAZUO;

INT.CL. : F01D 5/00 F04D 29/22 F16H 41/28

TITLE : IMPELLER WITH RING MEMBER



ABSTRACT : PURPOSE: To make a ring member fit accurately and easily to a blade by providing projections on the outer circumferential end surface of the blade and fitting the projections in concaves on a ring member to unit them in one body.

CONSTITUTION: A blade 11 is provided projectingly on the outer circumferential surface of a boss portion 12 unitedly. Projections 18 are provided on the outer circumferential end surface of the blade 11 unitedly. Boss holes 10 are formed on a ring member 15. The projections 18 are fitted to the boss holes 10 and the ring member 15 is wound around the blade 11 uniting the two in one. by this manner, the ring member can be fitted accurately and easily on the blade.

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